



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------|------------------|
| 10/798,240   | 03/11/2004  | Dale J. Carter       | 2635.CIRQ.NP              | 3555             |
| 26986  | 7590        | 10/23/2007           |                           |                  |
| MORRISS OBRYANT COMPAGNI, P.C.<br>734 EAST 200 SOUTH<br>SALT LAKE CITY, UT 84102 |             |                      | EXAMINER<br>TRAN, HENRY N |                  |
|  |             |                      | ART UNIT                  | PAPER NUMBER     |
|  |             |                      | 2629                      |                  |
|  |             |                      | MAIL DATE                 | DELIVERY MODE    |
|  |             |                      | 10/23/2007                | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |                               |  |
|------------------------------|-------------------------------|-------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/798,240 | Applicant(s)<br>CARTER ET AL. |  |
|                              | Examiner<br>Henry N. Tran     | Art Unit<br>2629              |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-23 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/27/07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The amendment received October 3, 2007 has been entered. Claims 1-10, 12-23, and 25 remain pending in this application. Applicants' Remarks/Arguments have been fully considered; and this Office action is in response thereto.

#### ***Response to Arguments***

2. Applicants' amendments to the specification provided in the October 3, 2007 amendment have overcome the objections to the specification recited in item 3 of the prior Office action mailed May 31/2007.

3. Applicants' arguments with respect to claims 1-10, 12-23, and 25 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the: "a sensor circuit", "a processor", and "a magnetic sensor system" (claims 1, 13, and 14); and "arcuate surfaces" (claim 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

Art Unit: 2629

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

5. The disclosure is objected to because of the following informalities:

The attempt to incorporate subject matter into this application by reference to the co-pending application number 10/158,592, see the amended paragraph [0031] of the "Amendments To The Specification", page 2 of the amendment filed October 3, 2007, is ineffective because that does not comply with 37 CFR 1.57 paragraph (c), see MPEP § 608.01(p); which requires:

(c) "Essential material" may be incorporated by reference, but only by way of an incorporation by reference to a U.S. patent or U.S. patent application publication, which patent or patent application publication does not itself incorporate such essential material by reference. "Essential material" is material that is necessary to:

(1) Provide a written description of the claimed invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and set forth the best mode contemplated by the inventor of carrying out the invention as required by the first paragraph of 35 U.S.C. 112;

(2) Describe the claimed invention in terms that particularly point out and distinctly claim the invention as required by the second paragraph of 35 U.S.C. 112; or

(3) Describe the structure, material, or acts that correspond to a claimed means or step for performing a specified function as required by the sixth paragraph of 35 U.S.C. 112.

Examiner's suggestion:

- The phrase "the co-pending application number 10/158,592" should be changed to -- the co-pending application number 10/158,592, which is published as U.S. patent application publication number 20030095115--.

6. The phrase "(not shown)" in the first line of the amended paragraph [0031] of the "Amendments To The Specification", page 2 of the amendment filed October 3, 2007, needs to be deleted because "the first sensor" is shown as element 28 illustrated in the "Replacement Sheet" of Fig. 2 and it is described in the amendments to the Specification submitted with the Amendment received August 28, 2006.

Appropriate correction is required.

***Claim Rejections -35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-6, 8, 14-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (U.S. Patent No. 6,292,674) in view of Gay et al (U.S. Patent No. 5,394,029, hereinafter referred to as "Gay")

Regarding claims 1 and 2, Davis, figures 1 and 3, teaches a portable electronic appliance, which is a mobile telephone (10), comprising: a portable electronic appliance having a housing (12), a data entry device (26) and a display screen (30); a first sensor (504) (a motion sensor 504, see figure 5, and col. 6, lines 9-13); and a second sensor (304) (a capacitive switch 304, see figure 3) disposed on a surface of the housing for a user to only make physical contact with the second sensor to thereby actuate the second sensor; and wherein the first sensor and the second sensor provides contact data to a sensor circuit (346) (a Switch Detector 346) disposed within the

Art Unit: 2629

portable electronic appliance, wherein the contact data in the sensor circuit is utilized by a processor (22) (a Controller 22) within the portable electronic appliance to determine whether or not to activate or deactivate a predetermined function of the portable electronic appliance; see col. 4, lines 13-41; col. 5, lines 12-20; and lines 42-64.

However, Davis does not teach that the first sensor (504) comprised a magnetic sensor system used for determining orientation of the portable electronic appliance in three dimensions relative to a constant magnetic field, and wherein the first sensor enables the portable electronic appliance to determine a three dimensional orientation relative to the constant magnetic field of the earth.

Gay, figures 3 and 8, teaches a computer device, which includes a sensor input device (80) comprising a magnetic sensor system (comprising Hall generator pairs 38, 40, and 42) for determining orientation of the portable electronic appliance in three dimensions relative to a constant magnetic field, and wherein the sensor input device enables the computer device to determine the device three dimensional orientation relative to the constant magnetic field of the earth, see abstract, col. 3, lines 12-51, and col. 4, lines 17-35. Because both Davis patent and Gay patent teach the use of movements of a sensor for providing the computer inputs. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the magnetic sensor system as taught by Gay for the Davis motion sensor to achieve the predictable results of detecting the movements and/or orientation of the device housing for providing the computer inputs. By this rationale, claims 1 and 2 are rejected.

Regarding claims 3-6 and 8, Davis further teaches: (i) the second sensor (304) is a capacitive sensing touch pad, see col. 5, lines 51-60; (ii) the second sensor is a pressure sensitive switch (the user grasps and/or squeezes the housing); see Fig. 2, col. 5, lines 29-36); and (iii) the second sensor is comprised of a plurality of capacitance sensitive touchpads, each is conforming to arcuate surfaces (704 and 706) of the device housing (702), see Fig. 7, and col. 6, lines 48-58.

Claim 3-6 and 8 are, either directly or indirectly, dependent upon the base claim 1; and are therefore rejected on the same reasons set forth in claim 1, and by the reasons noted above.

Regarding claims 14-19 and 21, which are method claims corresponding to the apparatus claims 1-6 and 8; and are therefore rejected on the same basis set forth in claims 1-6, and 8 discussed above.

9. Claims 7, 9, 10, 12, 13, 20, 22, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Gay (hereinafter referred to as "Davis-Gay") as applied to claims 1, 3, 14, and 16 above, and further in view of Smith et al (U.S. Patent No. 7,088,343, hereinafter referred to as "Smith").

Davis-Gay teaches generally all except for: (i) the capacitance sensitive touchpad is capable of proximity sensing; (ii) the second sensor is a general purpose touchpad that senses touch position or proximity of a touching object to the touchpad; (iii) the second sensor is comprised of one single-layer touchpad that senses touch or proximity of a touch object to the touchpad; and (iv) the function that is activated or deactivated using the second sensor is for adjusting volume.

Smith, Figs. 1-4, teaches a portable electronic device comprising a capacitive touchpad (102), which is comprised of one single-layer touchpad disposed at an outside edges (112) of the device housing (104); wherein, the touchpad is capable of proximity sensing, or performing a functional operation such as adjusting volume; see figures 2-5; col. 4, lines 33-52; col. 10, lines 45-58; col. 11, lines 31, 61-66; and col. 12, lines 5-33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the capacitive touchpad as taught by Smith in the Davis-Gay device because this would provide an improved portable computer device having an ergonomic touchpad with enhanced functionality and ease of use, see Smith, col. 10, lines 45-58. Claim 7, 9, 10, 12, 13, 20, 22, 23, and 25 are therefore rejected on the same basis set forth in claim 1, and by the rationale discussed above.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



Art Unit: 2629

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry N. Tran whose telephone number is 571-272-7760. The examiner can normally be reached on M-F 8:00-4:30.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Henry Tran/  
Henry N Tran  
Primary Examiner  
Art Unit 2629

HT  
10/19/07